

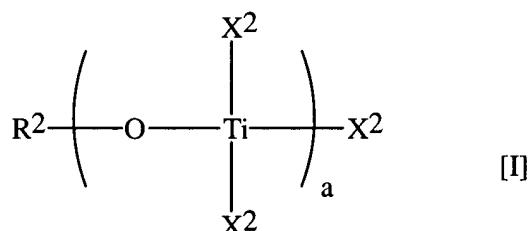
IN THE CLAIMS

Please amend the claims to read as follows:

1. (Currently Amended) A process for the producing a solid catalyst component (1) for  $\alpha$ -olefin polymerization, which comprises the steps of:

(1) reducing a titanium compound represented by the following formula [I] with an organomagnesium compound in the presence of an organosilicon compound having an Si-O bond, thereby obtaining a solid product, and

(2) contacting the solid product with a halogeno compound of the ~~14<sup>th</sup>~~ Group 14 element, at least one member selected from the group consisting of an electron donor compound (E1) and an organic acid halide, and a compound having a Ti-halogen bond, thereby obtaining the solid catalyst component (1) for  $\alpha$ -olefin polymerization,



wherein "a" is a number of 1 to 20,  $\text{R}^2$  is a hydrocarbon group having 1 to 20 carbon atoms, and  $\text{X}^2$  is a halogen atom or a hydrocarbyloxy group having 1 to 20 carbon atoms, and all of  $\text{X}^2$  may be the same or different from one another.

2. (Currently Amended) The process for producing a solid catalyst component (1) for  $\alpha$ -olefin polymerization according to Claim 1, wherein the step (2) comprises:

(i) contacting the solid product with the electron donor compound (E1) to obtain a contacted product, and

(ii) contacting the contacted product obtained with the halogeno compound of the ~~14-g~~ Group 14 element and a compound having a Ti-halogen bond.

3. (Currently Amended) The process for producing a solid catalyst component (1) for  $\alpha$ -olefin polymerization according to Claim 1, wherein the step (2) comprises:

(i) contacting the solid product with the compound having a Ti-halogen bond and the organic acid halide to obtain a contacted product, and

(ii) contacting the contacted product obtained with the halogeno compound of the ~~14-g~~ Group 14 element, the electron donor compound (E1) and the compound having a Ti-halogen bond.

4. (Currently Amended) The process for producing a solid catalyst component (1) for  $\alpha$ -olefin polymerization according to Claim 1, wherein the step (2) comprises:

(i) contacting the solid product with a mixture of the compound having a Ti-halogen bond and an ether to obtain a contacted product,

(ii) contacting the contacted product obtained in the above (i) with the organic acid halide to obtain a contacted product,

(iii) contacting the contacted product obtained in the above (ii) with a mixture of the halogeno compound of the ~~14-g~~ Group 14 element, a carboxylic acid ester and an ether to obtain a contacted product, and

(iv) contacting two times the contacted product obtained in the above (iii) with a mixture of the compound having a Ti-halogen bond and an ether.

5. (Currently Amended) The process for producing a solid catalyst component (1) for  $\alpha$ -olefin polymerization according to Claim 1, wherein the step (2) comprises:

(i) contacting the solid product with a mixture of the compound having a Ti-halogen bond and an ether to obtain a contacted product,

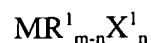
(ii) contacting the contacted product obtained in the above (i) with the organic acid halide to obtain a contacted product,

(iii) contacting the contacted product obtained in the above (ii) with a mixture of the compound having a Ti-halogen bond, a carboxylic acid ester and an ether to obtain a contacted product,

(iv) contacting the contacted product obtained in the above (iii) with a mixture of the halogeno compound of the ~~14-g~~ Group 14 element and an ether to obtain a contacted product, and

(v) contacting the contacted product obtained in the above (iv) with a mixture of the compound having a Ti-halogen bond and an ether.

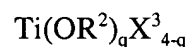
6. (Currently Amended) The process for producing a solid catalyst component (1) for  $\alpha$ -olefin polymerization according to Claim 1, wherein the halogeno compound of the ~~14-g~~ Group 14 element contains a compound represented by the following formula,



wherein M is an atom belonging to the ~~14<sup>th</sup>~~ Group 14, R<sup>1</sup> is a hydrocarbon group having 1 to 20 carbon atoms, X<sup>1</sup> is a halogen atom, m is a valence of M, and n is a number satisfying  $0 < n \leq m$ .

7. (Original) The process for producing a solid catalyst component (1) for  $\alpha$ -olefin polymerization according to Claim 6, wherein M contains a silicon atom.

8. (Original) The process for producing a solid catalyst component (1) for  $\alpha$ -olefin polymerization according to Claim 1, wherein the titanium compound contains a compound represented by the following formula,



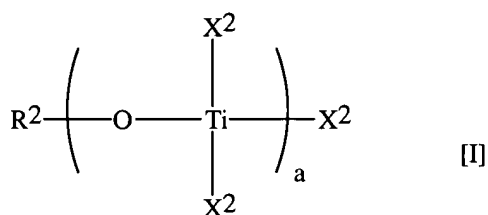
wherein R<sup>2</sup> is a hydrocarbon group having 1 to 20 carbon atoms, X<sup>3</sup> is a halogen atom, and q is a number satisfying  $0 < q \leq 4$ .

9. (Original) The process for producing a solid catalyst component (1) for  $\alpha$ -olefin polymerization according to Claim 1, wherein “a” in the formula [I] is 2 or 4.

10. (Currently Amended) A process for producing a solid catalyst component (2) for  $\alpha$ -olefin polymerization, which comprises the steps of:

(1) reducing a titanium compound represented by the following formula [I] with an organomagnesium compound in the presence of an organosilicon compound having an Si-O bond and an ester compound, thereby obtaining a solid product, and

(2) contacting the solid product with a halogen compound of the ~~14~~g Group 14 element, at least one member selected from the group consisting of an electron donor compound (E1) and an organic acid halide, and a compound having a Ti-halogen bond, thereby obtaining the solid catalyst component (2) for  $\alpha$ -olefin polymerization,



wherein “a” is a number of 1 to 20,  $\text{R}^2$  is a hydrocarbon group having 1 to 20 carbon atoms, and  $\text{X}^2$  is a halogen atom or a hydrocarbyloxy group having 1 to 20 carbon atoms, and all of  $\text{X}^2$  may be the same or different from one another.

11. (Currently Amended) The process for producing a solid catalyst component (~~12~~) for  $\alpha$ -olefin polymerization according to Claim 10, wherein the step (2) comprises:

(i) contacting the solid product with the electron donor compound (E1) to obtain a contacted product, and

(ii) contacting the contacted product obtained with the halogeno compound of the ~~14~~g Group 14 element and the compound having a Ti-halogen bond.

12. (Currently Amended) The process for producing a solid catalyst component (~~12~~) for  $\alpha$ -olefin polymerization according to Claim 10, wherein the step (2) comprises:

(i) contacting the solid product with the compound having a Ti-halogen bond and the organic acid halide to obtain a contacted product, and

(ii) contacting the contacted product obtained with the halogeno compound of the ~~14~~g Group 14 element, the electron donor compound (E1) and the compound having a Ti-halogen bond.

13. (Currently Amended) The process for producing a solid catalyst component (~~12~~) for  $\alpha$ -olefin polymerization according to Claim 10, wherein the step (2) comprises:

(i) contacting the solid product with a mixture of the compound having a Ti-halogen bond and an ether to obtain a contacted product,

(ii) contacting the contacted product obtained in the above (i) with the organic acid halide to obtain a contacted product,

(iii) contacting the contacted product obtained in the above (ii) with a mixture of the halogeno compound of the ~~14~~g Group 14 element, a carboxylic acid ester and an ether to obtain a contacted product, and

(iv) contacting two times the contacted product obtained in the above (iii) with a mixture of the compound having a Ti-halogen bond and an ether.

14. (Currently Amended) The process for producing a solid catalyst component (~~12~~) for  $\alpha$ -olefin polymerization according to Claim 10, wherein the step (2) comprises:

(i) contacting the solid product with a mixture of the compound having a Ti-halogen bond and an ether to obtain a contacted product,

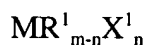
(ii) contacting the contacted product obtained in the above (i) with the organic acid halide to obtain a contacted product,

(iii) contacting the contacted product obtained in the above (ii) with a mixture of the compound having a Ti-halogen bond, a carboxylic acid ester and an ether to obtain a contacted product,

(iv) contacting the contacted product obtained in the above (iii) with a mixture of the halogeno compound of the ~~14-g~~ Group 14 element and an ether to obtain a contacted product, and

(v) contacting the contacted product obtained in the above (iv) with a mixture of the compound having a Ti-halogen bond and an ether.

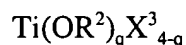
15. (Currently Amended) The process for producing a solid catalyst component (~~12~~) for  $\alpha$ -olefin polymerization according to Claim 10, wherein the halogeno compound of the ~~14-g~~ Group 14 element contains a compound represented by the following formula,



wherein M is an atom belonging to the ~~14-g~~ Group 14,  $R^1$  is a hydrocarbon group having 1 to 20 carbon atoms,  $X^1$  is a halogen atom, m is a valence of M, and n is a number satisfying  $0 < n \leq m$ .

16. (Currently Amended) The process for producing a solid catalyst component (~~12~~) for  $\alpha$ -olefin polymerization according to Claim 15, wherein M contains a silicon atom.

17. (Currently Amended) The process for producing a solid catalyst component (±2) for  $\alpha$ -olefin polymerization according to Claim 10, wherein the titanium compound contains a compound represented by the following formula,



wherein  $\text{R}^2$  is a hydrocarbon group having 1 to 20 carbon atoms,  $\text{X}^3$  is a halogen atom, and  $q$  is a number satisfying  $0 < q \leq 4$ .

18. (Currently Amended) The process for producing a solid catalyst component (±2) for  $\alpha$ -olefin polymerization according to Claim 10, wherein “a” in the formula [I] is 2 or 4.

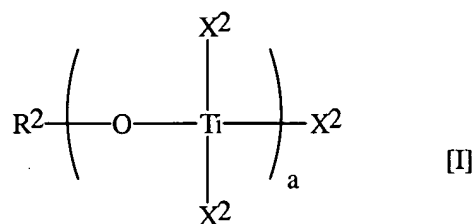
19. (Currently Amended) A process for producing a catalyst (1) for  $\alpha$ -olefin polymerization, which comprises the steps of:

(1) reducing a titanium compound represented by the following formula [I] with an organomagnesium compound in the presence of an organosilicon compound having an Si-O bond, thereby obtaining a solid product,

(2) contacting the solid product with a halogeno compound of the ~~14~~ Group 14 element, at least one member selected from the group consisting of an electron donor compound (E1) and an organic acid halide, and a compound having a Ti-halogen bond, thereby obtaining a solid catalyst component (1) for  $\alpha$ -olefin polymerization, and

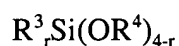
(3) contacting the solid catalyst component (1), an organoaluminum compound and an electron donor compound (E2) with one another, thereby obtaining the catalyst (1) for  $\alpha$ -olefin polymerization,





wherein “a” is a number of 1 to 20,  $\text{R}^2$  is a hydrocarbon group having 1 to 20 carbon atoms, and  $\text{X}^2$  is a halogen atom or a hydrocarbyloxy group having 1 to 20 carbon atoms, and all of  $\text{X}^2$  may be the same or different from one another.

20. (Original) The process for producing a catalyst (1) for  $\alpha$ -olefin polymerization according to Claim 19, wherein the electron donor compound (E2) contains an alkoxysilicon compound represented by the following formula,



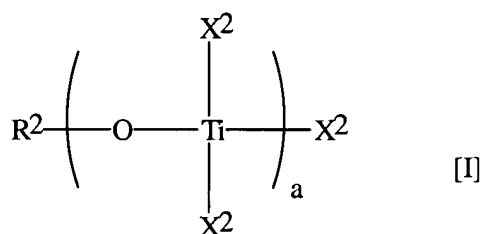
wherein  $\text{R}^3$  is a hydrocarbon group having 1 to 20 carbon atoms or a hydrogen atom,  $\text{R}^4$  is a hydrocarbon group having 1 to 20 carbon atoms,  $r$  is a number satisfying  $0 < r \leq 4$ , and all of  $\text{R}^3$  and all of  $\text{R}^4$  may be the same or different from one another, respectively.

21. (Original) A process for producing a catalyst (2) for  $\alpha$ -olefin polymerization, which comprises the steps of:

(1) reducing a titanium compound represented by the following formula [I] with an organomagnesium compound in the presence of an organosilicon compound having an Si-O bond and an ester compound, thereby obtaining a solid product,

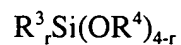
(2) contacting the solid product with a halogeno compound of the ~~14~~ Group 14 element, at least one member selected from the group consisting of an electron donor compound (E1) and an organic acid halide, and a compound having a Ti-halogen bond, thereby obtaining a solid catalyst component (2) for  $\alpha$ -olefin polymerization, and

(3) contacting the solid catalyst component (2), an organoaluminum compound and an electron donor compound (E2) with one another, thereby obtaining the catalyst (2) for  $\alpha$ -olefin polymerization,



wherein "a" is a number of 1 to 20,  $\text{R}^2$  is a hydrocarbon group having 1 to 20 carbon atoms, and  $\text{X}^2$  is a halogen atom or a hydrocarbyloxy group having 1 to 20 carbon atoms, and all of  $\text{X}^2$  may be the same or different from one another.

22. (Original) The process for producing a catalyst (2) for  $\alpha$ -olefin polymerization according to Claim 21, wherein the electron donor compound (E2) contains an alkoxy silicon compound represented by the following formula,



wherein  $R^3$  is a hydrocarbon group having 1 to 20 carbon atoms or a hydrogen atom,  $R^4$  is a hydrocarbon group having 1 to 20 carbon atoms,  $r$  is a number satisfying  $0 < r \leq 4$ , and all of  $R^3$  and all of  $R^4$  may be the same or different from one another, respectively.

23. (Cancelled)

24. (Cancelled)